

# Rocky Flats Cleanup Commission

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## Operable Unit 2 (The 903 Pad) Cleanup, the Plans and the Problems

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In 1958, a drum storage area was established near the southeast corner of Rocky Flats. Drums containing plutonium-contaminated lathe oil were placed in the area until drum corrosion and leakage were discovered in 1959. Rust inhibitors were subsequently added to the new drums as they were stored at this site. Further drum deterioration and soil contamination was discovered in 1964, however. Some drums were removed in 1967 and 1968. In 1969, the area was filled and asphalted. This asphalt area is now referred to as the 903 pad.

The original drum removal program released an unknown quantity of plutonium into the environment. Some air samplers indicated a dramatic rise in plutonium air concentration during drum removal. Soil was also removed from the Lip Area, southeast of the 903 Pad, from 1976 to 1978 and shipped offsite. The average concentration of plutonium in the removed soil was 1,200 disintegration per minute per gram (dpm/gm) or 540 picocuries per gram (pci/gm), with the maximum concentration at 45,000 dpm/gm (20,000 pci/gm). The state standard is 2 dpm/gm (1 pci/gm).

Present cleanup efforts under the Interagency Agreement will focus on completely remediating the 903 pad and Lip Area. These areas are grouped into OU 2, along with the east trenches. Past studies have called for using a hog and haul method. This involves injecting grout into the soil and then cutting the soil up into blocks for removal. Inefficiency plagues this method. The current Remedial Investigation/Feasibility Study (RI/FS) process is looking for other remediation methods, including wet screening, attrition scrubbing at high and low pH, and cationic flotation.

Past experience with the 903 area raises two critical issues for cleanup: dust resuspension and water seepage. Cleanup work can cause dust resuspension throughout Operable Unit 2. By resuspending contaminated soils, both workers and the public are exposed to dangerous respirable materials. Dust inhalation represents a pathway for introducing plutonium into the body. Several measures are required to reduce dust resuspension. Providing cleanup workers with respirators and protective clothing is the first measure needed. To protect the public and other plant workers, floorless buildings equipped with HEPA filters need to be placed over cleanup areas during any work. Soil wetting has proven inadequate for this job.

Along with dust resuspension, there exists seepage problems needing immediate attention. During the spring and summer, surface water runoff flows across the Rocky Flats site, including the contaminated areas. Concern has arisen that this water is helping create radioactive seeps in the surface and ground water around the 903 pad. Seeps allow for quick transport of radioactive elements. Contamination is migrating in the environment through this mechanism, including towards the 881 Hillside. The Department of Energy (DOE) has agreed to initiate treatability studies focusing on stopping this migration.

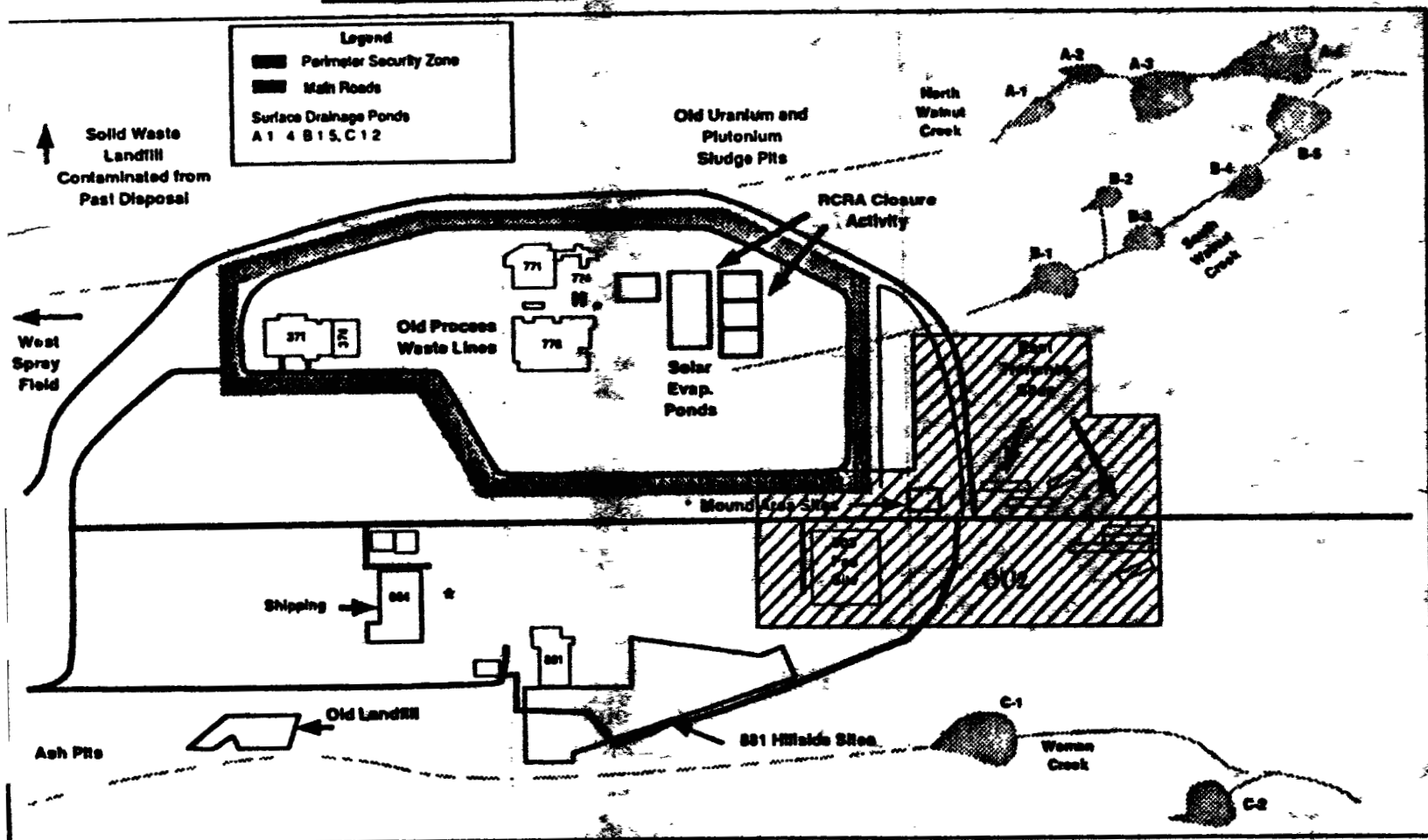
#### Sources

RFP 2901 Soil Decontamination at Rocky Flats

RFP 3914 Dust Transport - Wind Blown and Mechanical Resuspension  
(9/20/68)

RFP 3130 Decontamination of Soil Containing Plutonium and Americium  
(12/82)

RFP 3226 Removal of Plutonium Contaminated Soil from the 903 Lip Area  
During 1976 and 1978 (12/82)



OU2 — 903 Pad Site, Mound Area Sites, East Trenches Sites

Prepared by PEG & DBW  
for RFCC

EXHIBIT-8

RECORDED BY STIP  
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